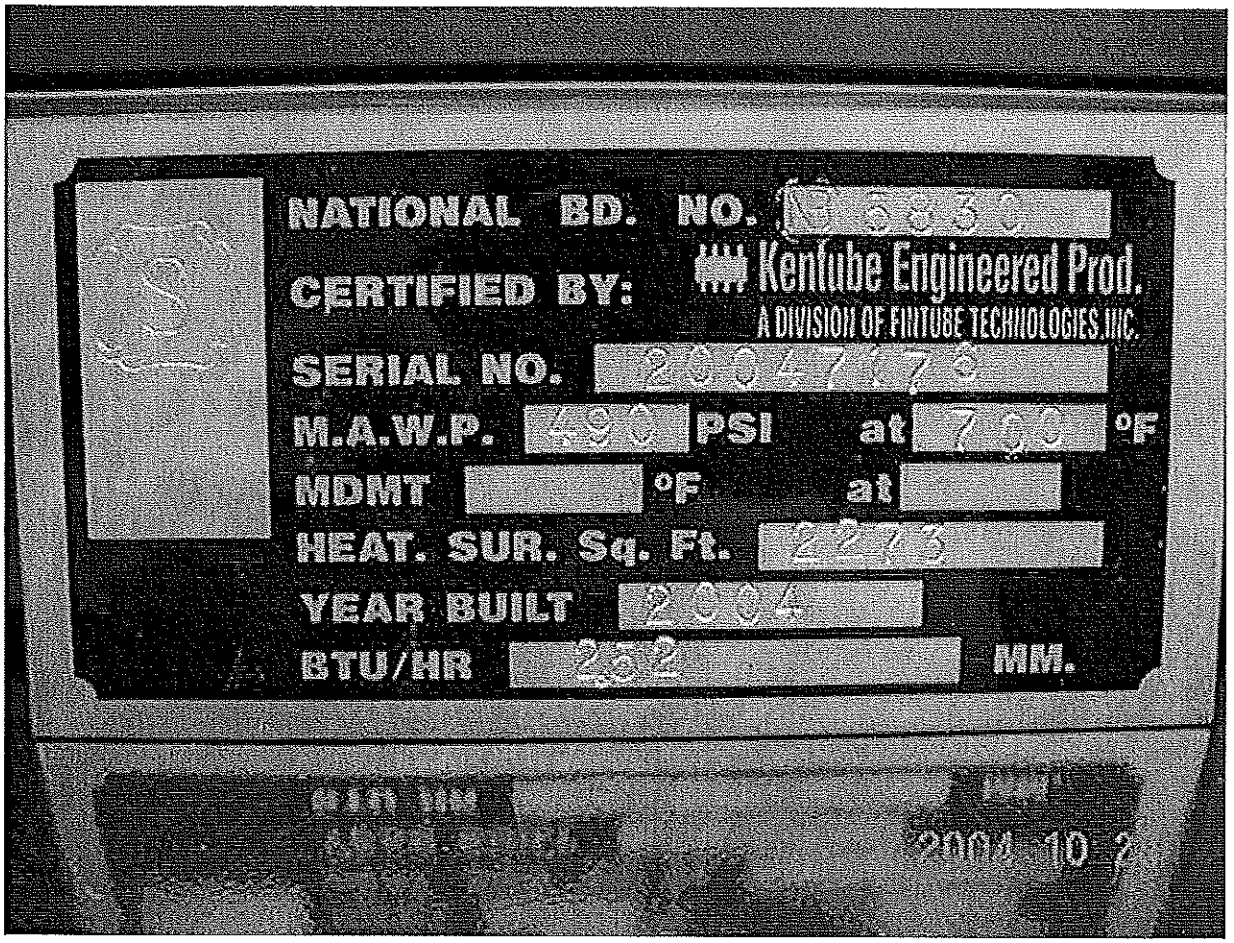

NATIONAL BD. NO.
CERTIFIED BY:
Kentube Engineered Prod.
A DIVISION OF FINTUBE TECHNOLOGIES, INC.
SERIAL NO.
M.A.W.P.
490
PSI
at
700
°F
MDMT
°F
at
HEAT. SUR. Sq. Ft.
2213
YEAR BUILT
2004
BTU/HR
252
MM.

FORM P-3 MANUFACTURER'S DATA REPORT FOR WATERTUBE BOILERS, SUPERHEATERS, WATERWALLS, AND ECONOMIZERS

As Required by the Provisions of the ASME Code Rules, Section I

MASTER DATA REPORT (check one) YES ☐ NO ☑

1. Manufactured by Kentube Engineered Products A Division of Fintube Technologies, Inc., 4141 South Galveston Tulsa, OK 74107
(Name and address of manufacturer)

2. Manufactured for Ware, Inc., PO Box 32487, Louisville KY 40232
(Name and address of purchaser)

3. Location of installation Unknown
(Name and address)

4. Unit Identification: Economizer (Complete boiler, superheater, waterwall, economizer, etc.) ID Nos. 20047176 (Mfr's Serial No) - (CRN) 20047176-1f rev 0 (Drawing No.) 5830 (Nat'l Bd. No.) 2004 (Year Built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction and workmanship conform to Section I of the ASME Boiler and Pressure Vessel Code. 2001 (Year) Addenda to 2003 (Date) and Code Cases - (Numbers)

Supporting Manufacturer's Data Reports properly identified and signed by Commissioned Inspectors are attached for the following items of this report:

- -
(Name of part, item number, mfr's name, and identifying stamp)
- -
- -

6. (a) Drums:

No.	Inside Diameter, In.	Inside Length ft.	Inside Length In.	Shell Plates: Mat'l. Spec. No., Grade	Shell Plates: Thickness, In.	Shell Plates: Inside Radius, In.	Tubesheets: Thickness, In.	Tubesheets: Inside Radius, In.	Tube Hole Ligament Efficiency, %: Longitudinal	Tube Hole Ligament Efficiency, %: Circumferential
1	-	-		-	-	-	-	-	-	-
2	-	-		-	-	-	-	-	-	-
3	-	-		-	-	-	-	-	-	-

No.	Longitudinal Joints: No. & Type*	Longitudinal Joints: Effi-ciency	Circum. Joints: No. & Type	Circum. Joints: Effi-ciency	Heads: Mat'l. Spec. No., Grade	Heads: Thickness, In.		Heads: Type**	Heads: Radius of Dish	Heads: Manholes No. Size	Hydro-static Test, psi.
1	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-

*Indicate if (1) Seamless; (2) Fusion welded.

**Indicate if (1) Flat; (2) Dished; (3) Ellipsoidal; (4) Hemispherical

6. (b) Boiler tubes:

Diameter	Thickness	Mat'l. Spec. No., Grade
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

6. (c) Headers no. -
(Box or sinuous or round, Mat'l. spec. no.; Thickness)
Heads or Ends - Hydro. Test, psi -
(Shape; Mat'l. spec no. Thickness)

6. (d) Staybolts -
(Mat'l. spec. no.; Diameter; Size telltale; Net area)
Pitch - in. Net Area - in.² MAWP - psi
(Hor. and Vert.) (Supported by one bolt)

6. (e) Mud Drum: - or - Heads or Ends - Hydro. Test, psi -
(For sect. header boilers, State Size; Shape; Mat'l. spec. no.; Thickness) (Shape; Mat'l. spec. no.; Thickness)

7. (a) Waterwall Headers:

No.	Size and Shape	Material Spec. No.	Thickness, In.	Heads or Ends: Shape	Heads or Ends: Thickness, In.	Heads or Ends: Material Spec. No.	7(b) Waterwall Tubes: Hydro Test, psi.	Diameter, In.	Thickness, In.	Material Spec. No.
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

8. (a) Economizer Headers — 8(b) Economizer Tubes

1	4.026" inlet	sa-106 gr b	-	weld cap	sch 40	sa-234 wpb	-	2.0"	.105"	sa-178 gr a
1	4.026" outlet	sa-106 gr b	-	weld cap	sch 40	sa-234 wpb	-	-	-	-

FORM P-3 (Back)

9. (a) Superheater Headers — Heads or Ends — 9 (b) Superheater Tubes

No.	Size and Shape	Material Spec. No.	Thickness, in.	Heads or Ends: Shape	Heads or Ends: Thickness, in.	Heads or Ends: Material Spec. No.	Hydro Test, psi	Tubes: Diameter, in.	Tubes: Thickness, in.	Tubes: Material Spec. No.
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

10. (a) Other Parts (1) threaded couplet (2) - (3) - 10(b) Tubes for Other Parts

1	(6) .750"	sa-105	3000#	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-

11. Openings (1) Steam (1) 4.0" x 300# rfwn flange sa-105 (No., size, and type of nozzles or outlets) (2) Safety Valve (1) .500" x 3000# threaded couplet sa-105 (No., size, and type of nozzles or outlets)

(3) Blowoff - (No., size, and type of nozzles or outlets) (4) Feed (1) 4.0" x 300# rfwn flange sa-105 (No., size, type and location of connections)

12.

		Maximum Allowable Working Pressure	Code Par. and/or Formula on Which MAWP is Based	Shop Hydro. Test, psi	Heating Surface Sq. Ft.
a	Boiler	-	-	-	-
b	Waterwall	-	-	-	-
c	Economizer	490	pg-99	735	2,273
d	Superheater	-	-	-	-
e	Other Parts	-	-	-	-

Heating surface to be stamped on drum heads.

This heating surface not to be used for determining minimum safety valve capacity.

13. Field Hydro. Test psi
-
-
-
-
-

14. Maximum Designed Steaming Capacity - lb/hr

15. Remarks: srv = .500" kunkle model # 927, set pressure @ 490 psig, (ships loose)

-

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this data report are correct and that all details of design, material, construction, and workmanship of this boiler conform to Section I of the ASME BOILER AND PRESSURE VESSEL CODE.

Our Certificate of Authorization No. 4072 to use the (S) S Symbol expires 1/06, 2005

Date 11/14/2004 Signed _____ (Authorized Representative) Name Kentube Engineered Products A Division of Fintube Technologies, Inc. (Manufacturer)

CERTIFICATE OF SHOP INSPECTION

BOILER MADE BY KENTUBE ENGINEERED PRODUCTS at 4141 S. GALVESTON, TULSA OK 74107.

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the state or province of OKLAHOMA and employed by ONE BEACON AMERICA, have inspected parts of this boiler referred to as data items 8a, 8b, 10a, 11, 12c, 15 and have examined Supporting Manufacturer's Data Reports for items - and state that, to the best of my knowledge and belief, the Manufacturer has constructed this boiler in accordance with Section I of the ASME BOILER AND PRESSURE VESSEL CODE. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the boiler described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 11-15-04 Signed _____ (Authorized Inspector) Commissions NB, 8432-M OK, 266 (Nat'l Bd. (incl. endorsements) State, Prov. and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the field assembly of all parts of this boiler conforms with the requirements of SECTION I of the ASME BOILER AND PRESSURE VESSEL CODE.

Our Certificate of Authorization No. _____ to use the (A) or (S) _____ Symbol expires _____, _____

Date _____ Signed _____ (Authorized Representative) Name _____ (Assembler)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

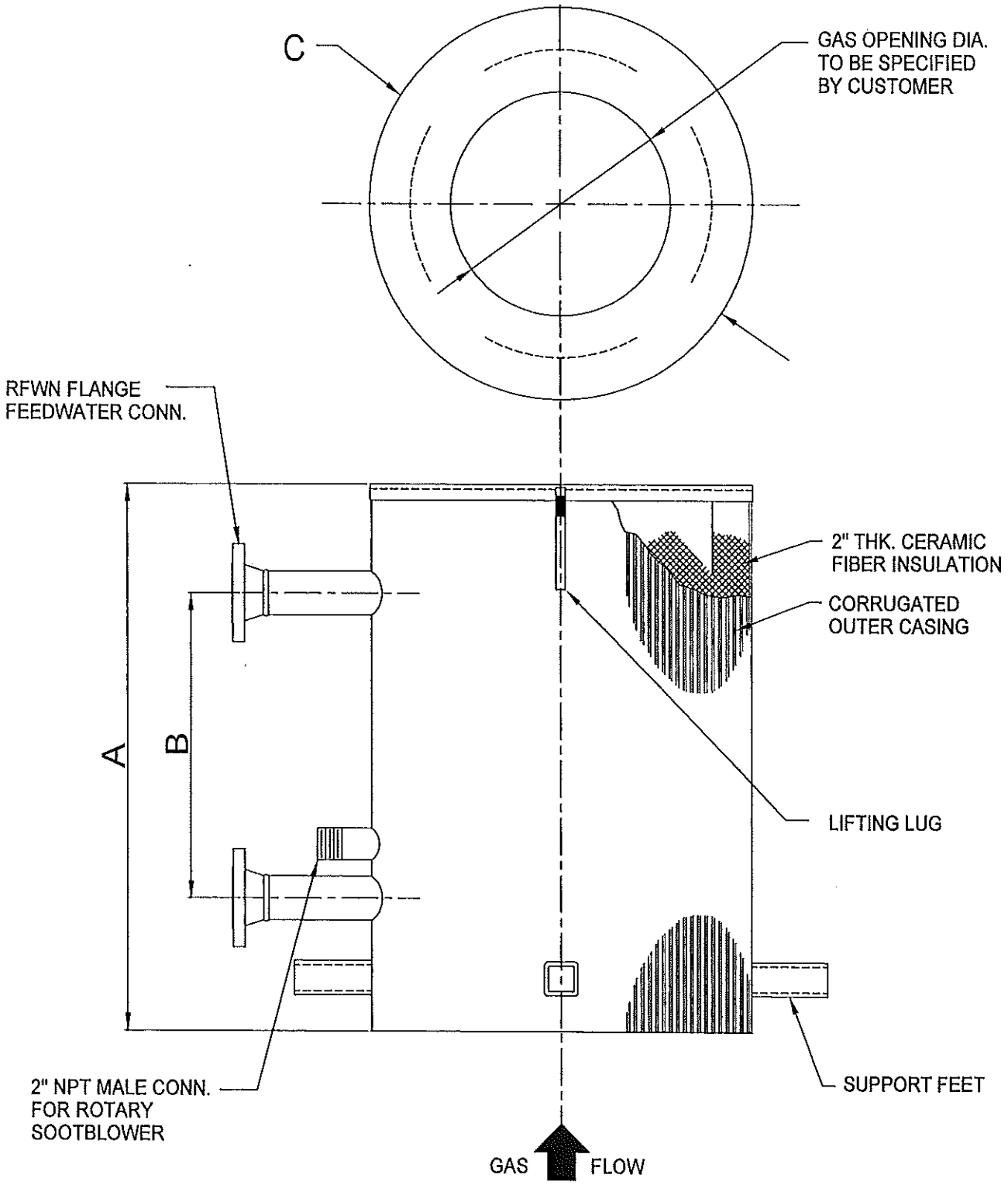
I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the state or province of _____ and employed by _____ have compared statements in this Manufacturer's Data Report with the described boiler and state that the parts referred to as data items _____, not included in the Certificate of Shop Inspection, have been inspected by me and that to the best of my knowledge and belief, the manufacturer and/or the assembler has constructed and assembled this boiler in accordance with the applicable sections of the ASME BOILER AND PRESSURE VESSEL CODE. The described boiler was inspected and subjected to a hydrostatic test of _____ psi.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the boiler described in this Manufacturer's Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date _____ Signed _____ (Authorized Inspector) Commissions _____ (Nat'l Bd. (incl. endorsements) State, Prov. and No.)

KENTUBE CYLINDRICAL FUEL ECONOMIZER

20047176



Kentube
ENGINEERED PRODUCTS
555 W. 41st ST. TULSA, OKLAHOMA 74107
PHONE (918)446-4561 FAX (918)445-4001

SEE PERFORMANCE DATA SHEET FOR DIMENSIONS AND SIZE OF FEEDWATER CONN'S.

B1

CFE-V6

GREEN, GARRETT

20047176

From: steven.taylor@wareinc.com
Sent: Wednesday, September 15, 2004 2:48 PM
To: GREEN, GARRETT
Subject: 30,000pph boiler economizer

Garrett, the dimensions for the economizer flanges it as follows:

The outside of the flange is 66" X 45". Holes are 1 1/2" from the outside edge.

The long side of the flange has 14 spaces @ 4 1/2".

The short side has one space on each end at 3" and 8 equal spaces @ 4 1/2".

The flanges are made of 3" X 3" angle.

Let me know if you need any further detail.

Thanks

Steven Taylor
Director of Sales
Rental, Equipment and Special Project Sales
800-228-8861
502-314-8011--cell
502-331-9656--home

Kentube
ENGINEERED PRODUCTS
A Division of Fintube Technologies, Inc.

555 West 41st Street
Tulsa, Oklahoma 74107-7012
Tel: 918-446-4561
Fax: 918-445-4001
www.kentube.com

20047176

EQUIPMENT DATA

PREPARED FOR	Ware, Inc.	PROPOSAL	315-41132-0-0
REFERENCE	30000 lb/h rental	DATE	9-24-2004

DESIGN

ASME CODE SECTION	I	CYLINDRICAL ECONOMIZER	MODEL 511240
TUBE SIDE FLUID	WATER	GAS SIDE FUEL	NATURAL GAS
FLUID FLOW	DOWN	GAS FLOW	VERTICAL
DESIGN TEMPERATURE (°F)	700	FLOW TYPE	COUNTER-CURRENT
DESIGN PRESSURE (psi)	490	EFFECTIVE SURFACE (ft^2)	2,273

PERFORMANCE

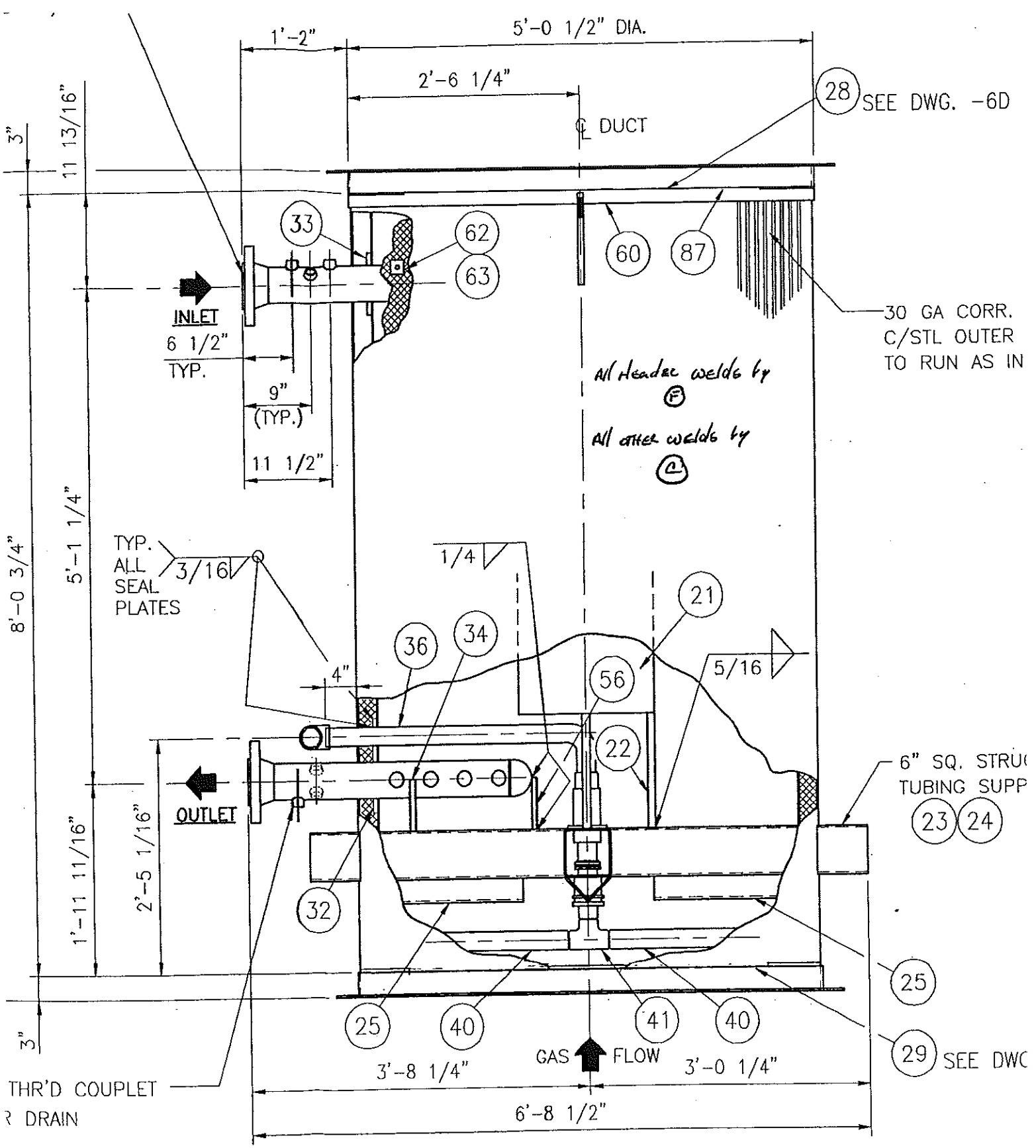
	TUBE	SHELL		
FLOW RATE (lb/hr)	30,000	35,850	HEAT EXCHANGED (Btu/hr)	2,522,311
TEMP IN (°F)	220	580	U EXTERNAL (Btu/hr-ft^2-°F)	6.454
TEMP OUT (°F)	303.1	317.5	LMTD (°F)	171.9
PRES IN (psi)	335	14.7	U BARE (Btu/hr-ft^2-°F)	60.841
PRES DROP (psi & in WC)	(1.3) 8.8	0.74	BARE TUBE SURFACE (ft^2)	241
VELOCITY (ft/sec)	2.0	33.9	MAX FIN TEMP (°F)	487
SPEC HEAT (Btu/lb-°F)	1.0121	0.2734	MAX TUBE WALL TEMP (°F)	349
FOULING (hr-ft^2-°F/Btu)	0.001	0.002	FLUID SAT TEMP (°F)	417

CONSTRUCTION

TUBE SIDE		SHELL SIDE	
NUMBER OF WRAPS	12	CASING	C/STL
NUMBER OF RINGS	4	INSULATION	2 in. CERAMIC FIBER
STREAMS	4	LAGGING	30 GA GALVANIZED
EFFECTIVE LENGTH (ft)	9.588		
NOZZLE SIZE	4 in. RFWN	SOOTBLOWER TYPE	BUILT IN
TUBE MATERIAL	SA-178-A		
TUBE OD (in)	2.00	DRAWING NUMBER	CFE-V6
TUBE MIN WALL (in)	0.105		
TUBE PITCH	4.5 in. SQUARE	DIM A (OVERALL HEIGHT)	8'-0 3/4"
TUBE TYPE	FINNED	DIM B (NOZZLE C-C)	5'-1 1/4"
FIN MATERIAL	C/STL	DIM C (DIAMETER)	5'-0 1/2"
FIN TYPE	SOLID		
FIN PITCH (fins per inch)	4		
FIN HEIGHT (in)	0.75	UNIT WEIGHT - DRY (lb)	6,579
FIN THICKNESS (in)	0.06	UNIT WEIGHT - WET (lb)	7,183

OPT

B



ELEVATION VIEW

KEP Job # 20047176

			DWN.	SRD	9/30
			CHKD.	DRB	10/7/